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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/016,209 | 12/12/2001 | Mariko Shozui | HITACHI-0029 | 6789 |

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EXAMINER

INGBERG, TODD D

ART UNIT PAPER NUMBER

2124

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/016,209

Applicant(s)

SHOZUI ET AL.

Examiner

Todd Ingberg

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/11/02.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claims 1 – 20 have been examined.

Specification

1. Preliminary amendment filed December 12, 2001 has been entered.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in 09/994,956 on November 27, 2001. It is noted, however, that applicant has not filed a certified copy of the JAPAN 2001-192324 application as required by 35 U.S.C. 119(b).

Information Disclosure Statement

3. The Information Disclosure Statement (IDS) filed June 11, 2002 has been considered.

Claim Objection

4. Claim 9 is objected to because of the following informalities: It appears the claim is intended to be dependent on another claim but the number is missing. The Examiner presumed claim 9 to be dependent on claim 1.

Claim 9

The system for designing an information flow process according to claim **1** (Examiner presumption) wherein said input/output unit displays a service function design table based upon information from the ER source information file, the service function design table allowing a user to define a new service function, said input/output unit receiving the user input data at least for systematization factors, said processing unit storing the systematization factors and the information in the service function design table as a new function description.

Double Patenting

5. Claims 1 – 20 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 – 32 of copending Application No. 09/994,956. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim information flow process based on data flow diagram matrix format with activity names and ER source files with a structured data flow.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Object Engineering Designing Large-Scale Object-Oriented Systems by Gary C. Scullo published April 1994 in view of USPN # 5,493,489 **Tamaki** et al issued February 20, 1996.

Motivation to Combine

Scullo teaches the underlying theory of Information Engineering but the text book is not an implementation. The Tamaki reference being a presumed valid U.S. Patent teaches an invention reduced to practice. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the 1994 teaching of Scullo with the 1991 filed Tamaki reference because Information Engineering enables one to identify and develop well defined interfaces among components.

Claim 1

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Scullo teaches a system for designing an information flow process (**Scullo**, page 290, "Information engineering" and pages 296 - to 303), comprising: a data storage unit (**Scullo**, page 300, identifying the processes, data stores and data flows & **Tamaki**, col 1, lines 10 - 15), for storing a predetermined set of activity names (**Scullo**, page 300, processes & **Tamaki**, col2 , lines 30 - 40, activities) in a predetermined sequence (**Scullo**, page 300, Process-Sequence Diagrams), the activity names respectively representing certain service operations (**Scullo**, page 300, processes & **Tamaki**, col2 , lines 30 - 40, activities); an input/output unit connected to said data storage unit for displaying the activity names (**Scullo**, page 300, processes, data stores and data flows & **Tamaki**, Figure 4) as information provider activity names (**Scullo**, page 300, processes, data stores and data flows & **Tamaki**, Figure 4) and information consumer activity names (**Scullo**, page 300, data flows to identify producers and consumers), according to the predetermined sequence (**Scullo**, page 300, Process-Sequence Diagrams) in a predetermined data flow definition (DFD) (**Scullo**, page 283 DFD), matrix format (**Scullo**, page 300, process/matrix form) and for receiving user input data for specifying an information name, (**Scullo**, one of the information provider activity names and a corresponding one of the information consumer activity names (**Scullo**, page 300, data flows to identify producers and consumers)) ; and a processing unit connected to said input/output unit and said data storage unit for organizing relationships among the information provider activity names, (**Scullo**, page 300, processes, data stores and data flows & **Tamaki**, Figure 4) the information consumer activity names (**Scullo**, page 300, data flows to identify producers and consumers) and the information names at a position in the predetermined DFD matrix format (**Scullo**, page 300, process/matrix form) representing data to be transmitted from the information provider activity name to the information consumer activity name, (**Scullo**, page 300, data flows to identify producers and consumers), said processing unit storing the relationships in an entity relation (ER) (**Scullo**, source information file. **Scullo** teaches the ER diagram for identifying data stores but does not teach the theory reduced to practice. It is **Tamaki** who teaches the implementation by implementing the matrix in rows and columns (stored on a disk) (**Tamaki**, col 1, lines 10 - 15), Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to combine the 1994 teaching of **Scullo** with the 1991 filed **Tamaki** reference because Information Engineering enables one to identify and develop well defined interfaces among components

Claim 2

The system for designing an information flow process according to claim 1 wherein said input/output unit receives the user input data for modifying the activity names, said processing unit updating the relationships and the DFD matrix format for displaying the modified activity names, said processing unit storing the modified activity names in the ER source information file. As per claim 1 in view of **Tamaki**, col 5, lines 50 - 60, matrix generator and col 4 lines 15 - 45.

Claim 3

The system for designing an information flow process according to claim 1 wherein said input/output unit receives the user input data for modifying the predetermined sequence for the activity names, said processing unit updating the relationships and the DFD matrix format for

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displaying the modified predetermined sequence for the activity names, said processing unit storing the modified predetermined sequence for the activity names in the ER source information file. As per claims 1 and 2.

Claim 4

The system for designing an information flow process according to claim 1 wherein said input/output unit receives the user input data for modifying the information names, said processing unit updating the relationships and the DFD matrix format for displaying the modified information names, said processing unit storing the modified information names in the ER source information file. As per claims 1 and 2.

Claim 5

The system for designing an information flow process according to claim 1 wherein said input/output unit receives the user input data for modifying the positions of the information names, said processing unit updating the relationships and the DFD matrix format for displaying the modified positions of the information names, said processing unit storing the modified positions of the information names in the ER source information file. As per claims 1 and 2.

Claim 6

The system for designing an information flow process according to claim 1 wherein said input/output unit for receives the user data for further determining associated detailed activities of a selected one of the activity names, said processing unit updating the predetermined DFD matrix format based upon the associated detailed activities for displaying the activity names, said processing unit storing the activity names with the associated detailed activities in the ER source information file. As per claims 1 and 2.

Claim 7

The system for designing an information flow process according to claim 6 wherein said input/output unit further comprises a structure data flow (SDF) input screen based upon the ER source information file for receiving the user input data for the associated detailed activities via the SDF input screen. **Scullo**, page 253, Activity is the Operation name and the Request and Stimulus and Request Response is the structured data flow.

Claim 8

The system for designing an information flow process according to claim 7 wherein said SDF input screen displays an information provider activity name, an input information name, a detailed activity name, as output information name and an information consumer activity name. As per claims 1 and 7.

Claim 9

The system for designing an information flow process according to claim (presumed to be claim 1) wherein said input/output unit displays a service function design table based upon information from the ER source information file, the service function design table allowing a user to define a new service function, said input/output unit receiving the user input data at least for

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systematization factors, said processing unit storing the systematization factors and the information in the service function design table as a new function description. As per claim 1.

Claim 10

The system for designing an information flow process according to claim 9 wherein the user input data includes activity contents and subjects. As per claim 1 and Tamaki, col 6, lines 5 – 35.

Claim 11

The system for designing an information flow process according to claim 9 further comprising a printer connected to said processing unit for printing the new function description. **Tamaki**, col 6, lines 45 – 50.

Claim 12

The system for designing an information flow process according to claim 1 wherein said input/output unit displays a service information design table based upon information from the ER source information file, the service information design table allowing a user to define new service information, said input/output unit receiving the user input data at least for systematization factors, said processing unit storing the systematization factors and the information in the service information design table as an input/output information overview. As per claim 1.

Claim 13

The system for designing an information flow process according to claim 12 wherein the user input data includes activity contents and subjects. As per claim 1 and Tamaki, col 6, lines 5 – 35.

Claim 14

The system for designing an information flow process according to claim 12 further comprising a printer connected to said processing unit for printing the input/output information overview. **Tamaki**, col 6, lines 45 – 50.

Claim 15

The system for designing an information flow process according to claim 1 wherein said input/output unit receives the user input data for selecting sequential pairs of the activity names and the information names from the DFD matrix, said processing unit storing the sequential pairs of the activity names and the information names into an event trace table, said processing unit reading one of the activity names from the event trace table, said processing unit causing the input/output unit to display the one of the activity names in an event record column via an event trace diagram, said processing unit reading a corresponding one of the information names from the event trace, said processing unit causing the input/output unit to display the corresponding one of the information names in a row that corresponds to the one of the activity names in the event record column. As per claim 1.

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Claim 16

The system for designing an information flow process according to claim 15 further comprising a printer connected to said processing unit for printing the event trace diagram. **Tamaki**, col 6, lines 45 – 50.

Claim 17

A system for designing an information flow process, comprising: a data storage unit for storing a predetermined set of activity names in a predetermined sequence, the activity names respectively representing certain service operations; an input/output unit connected to said data storage unit for displaying the activity names as information provider activity names and information consumer activity names according to the predetermined sequence in a predetermined data flow definition (DFD) matrix format and for receiving user input data for specifying an information name, one of the information provider activity names and a corresponding one of the information consumer activity names; and a processing unit connected to said input/output unit and said data storage unit for organizing relationships among the information provider activity names, the information consumer activity names and the information names at a position in the predetermined DFD matrix format representing data to be transmitted from the information provider activity name to the information consumer activity name, said processing unit storing the relationships in an entity relation (ER) source information file, wherein said input/output unit for receives additional user data via a structure data flow (SDF) input screen for forth determining associated detailed activities of a selected one of the activity names, said processing unit updating the predetermined DFD matrix format based upon the associated detailed activities for displaying the activity names, said processing unit further storing the activity names with the associated detailed activities in the ER source information file. As per claims 1 and 7 above.

Claim 18

A system for designing an information flow process, comprising: a data storage unit for storing a predetermined set of activity names in a predetermined sequence, the activity names respectively representing certain service operations; an input/output unit connected to said data storage unit for displaying the activity names as information provider activity names and information consumer activity names according to the predetermined sequence in a predetermined data flow definition (DFD) matrix format and for receiving user input data for specifying an information name, one of the information provider activity names and a corresponding one of the information consumer activity names; and a processing unit connected to said input/output unit and said data storage unit for organizing relationships among the information provider activity names, the information consumer activity names and the information names at a position in the predetermined DFD matrix format representing data to be transmitted from the information provider activity name to the information consumer activity name, said processing unit storing the relationships in an entity relation (ER) source information file, wherein said input/output unit displays a service function design table based upon information from the ER source information file, the service function design table allowing a user to define a new service function, said input/output unit further receiving additional user input data at least for systematization factors, said processing unit storing the systematization factors and the information in the service function design table as a new function description. As per claim 1.

Claim 19

A system for designing an information flow process, comprising: a data storage unit for storing a predetermined set of activity names in a predetermined sequence, the activity names respectively representing certain service operations; an input/output unit connected to said data storage unit for displaying the activity names as information provider activity names and information consumer activity names according to the predetermined sequence in a predetermined data flow definition (DFD) matrix format and for receiving user input data for specifying an information name, one of the information provider activity names and a corresponding one of the information consumer activity names; and a processing unit connected to said input/output unit and said data storage unit for organizing relationships among the information provider activity names, the information consumer activity names and the information names at a position in the predetermined DFD matrix format representing data to be transmitted from the information provider activity name to the information consumer activity name, said processing unit storing the relationships in an entity relation (ER) source information file, wherein said input/output unit displays a service information design table based upon information from the ER source information file, the service information design table allowing a user to define new service information, said input/output unit receiving additional user input data at least for systematization factors, said processing unit storing the systematization factors and the information in the service information design table as an input/output information overview. As per claim 1.

Claim 20.

A system for designing an information flow process, comprising. a data storage unit for storing a predetermined set of activity names in a predetermined sequence, the activity names respectively representing certain service operations;

an input/output unit connected to said data storage unit for displaying the activity names as information provider activity names and information consumer activity names according to the predetermined sequence in a predetermined data flow definition (DFD) matrix format and for receiving user input data for specifying an information name, one of the information provider activity names and a corresponding one of the information consumer activity names; and

a processing unit connected to said input/output unit and said data storage unit for organizing relationships among the information provider activity names, the information consumer activity names and the information names at a position in the predetermined DFD matrix format representing data to be transmitted from the information provider activity name to the information consumer activity name, said processing unit storing the relationships in an entity relation (ER) source information file,

wherein said input/output unit receives additional user input data for selecting sequential pairs of the activity names and the information names from the DFD matrix, said processing unit storing the sequential pairs of the activity names and the information names into an event trace table, said processing unit reading one of the activity names from the event trace table, said processing unit causing the input/output unit to display the one of the activity names in an event record column in an event trace diagram, said processing unit reading a corresponding one of the

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information names from the event trace, said processing unit causing the input/output unit to display the corresponding one of the information names in a row that corresponds to the one of the activity names in the event record column. As per claim 1.

Correspondence Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Todd Ingberg** whose telephone number is (703) 305-9775. The examiner can normally be reached during the following hours:

| Monday | Tuesday | Wednesday | Thursday | Friday |
|-----------|-----------|-----------|-----------|-----------|
| 6:15-1:30 | 6:15-3:45 | 6:15-4:45 | 6:15-3:45 | 6:15-1:30 |

This schedule began December 1, 2003 and is subject to change.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Kakali Chaki** can be reached on (703) 305-9662. Please, note that as of August 4, 2003 the **FAX number** changed for the organization where this application or proceeding is assigned is **(703) 872-9306**.

Also, be advised the United States Patent Office **new address** is

Post Office Box 1450

Alexandria, Virginia 22313-1450

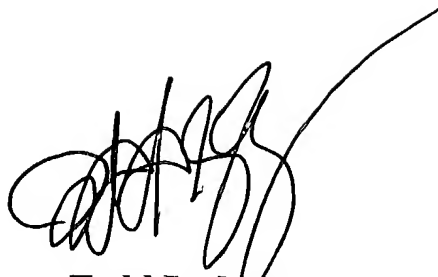
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-9700.

Special Notice

9. Please, Note the Examiner's telephone number will change in October when the Art Unit moves to the new location. The Examiner's new telephone number will be as follows:

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(571) 272-3723

A handwritten signature in black ink, appearing to read 'Todd Ingberg', with a long, sweeping line extending from the end of the signature towards the upper right corner of the page.

Todd Ingberg
Primary Examiner
Art Unit 2124
September 30, 2004
